## Claims:

- A Grouped Optical Add Drop Multiplexer (GOADM) comprising a periodic filter for forming a group of optical wavelengths to be dropped or added.
- 2. The Grouped Optical Add Drop Multiplexer (GOADM) according to Claim 1, for dropping or adding a group of optical wavelengths from/to a spectrum of optical wavelengths transmitted over an incoming optical line so that adjacent optical wavelengths in the spectrum are initially spaced from one another by a basic step "s", the GOADM comprises said periodic filter insertable in the incoming optical line as a primary filter to produce said group of optical wavelengths where adjacent wavelengths of the group are spaced from one another by a group step being equal to ks, wherein k is an integer >1.
- 3. The GOADM according to Claim 1, provided with one or more secondary filters connected to said periodic filter serving a primary filter, wherein each of said secondary filters is responsible of dropping or adding one particular wavelength from said group.
- 4. The GOADM according to Claim 1, comprising an ADD module and a DROP module, wherein the DROP module comprises a first said periodic filter serving as a primary DROP periodic filter and connected to a first assembly comprising one or more secondary DROP filters each responsible of separating a particular wavelength from the group, and wherein the ADD module comprises a second said periodic filter serving as a primary ADD periodic filter and connected to a second assembly

comprising one or more secondary ADD filters each responsible of picking a particular wavelength for the group.

- 5. The GOADM according to Claim 4, wherein said first periodic filter and said second periodic filter are one and the same periodic filter enabling simultaneous operation of said two modules.
- The GOADM according to Claim 1, wherein said periodic filter is tunable.
- 7. The GOADM according to Claim 6, provided with one or more secondary filters connected to said periodic filter serving a primary filter, the secondary filters being automatically tunable in response to tuning of the periodic filter.

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